In the claims:

1. (Currently Amended) A detector for providing position detection of a first kind together with position detection of a second kind, the detector comprising:

a sensor,

a patterned arrangement of sensing conductors extending within said sensor, and

detection circuitry associated with said arrangement for detecting signals at same sensing conductors arising from said position detection of a first kind and signals arising from said position detection of a second kind, therefrom to detect positions at said sensor.

2. (Currently Amended) The detector of claim 1, wherein said position detection of a first kind comprises ~~detection of an object able to produce an~~ electromagnetic-based object detection of an object able to produce an electromagnetic field.

3. (Original) The detector of claim 1, wherein said position detection of a first kind comprises capacitive-based touch detection.

4. (Currently Amended) The detector of claim 1, wherein said position detection of a first kind comprises electromagnetic detection of an object able to produce an electromagnetic field and said position detection of a second kind comprises capacitive-based touch detection.

5. (Original) The detector of claim 1, wherein said detection circuitry is capable of detecting interactions of said first kind and said interactions of said second kind simultaneously.

6. (Original) The detector of claim 1, wherein said detection circuitry is capable of detecting interactions of said first kind and said interactions of said second kind independently.

7. (Currently Amended) The detector of ~~claim 3~~ claim 4, wherein said sensor is located over a detection region, and comprises ~~an~~ at least one oscillator for providing an oscillating signal to said sensing conductors, and to an excitation circuitry for providing an excitation signal capable of exciting an electromagnetic stylus-type object, wherein said patterned arrangement ~~comprises conductive elements extending~~extends over said detection region, and wherein said detection circuitry is adapted for detecting the capacitive effect of a conductive object, such as finger touch, and ~~an electromagnetic field~~signals from said ~~electromagnetic~~ stylus-type object at at least one of the sensing conductors~~said at least one conductive element~~.

8. (Currently Amended) The detector of claim 7, wherein said electromagnetic-based object comprises a resonance circuit,~~oscillator is connected to provide said oscillating signal to said excitation circuitry~~ and ~~also to provide an~~said excitation signal is adapted to excite said resonance circuit.~~for said capacitive based touch detection.~~

9. (Original) The detector of claim 1, wherein said sensor is substantially transparent and suitable for location over a display screen.

10. (Currently Amended) The detector of ~~claim 1~~ claim 7, wherein said detection region is the surface of a display screen and wherein said sensor including said ~~at least one conductive element~~conducting conductors is substantially transparent.

11. (Currently Amended) The detector of claim 1, ~~comprising a plurality of conductive elements and~~ wherein said detection circuitry comprises a differential detector arrangement associated with said sensing conductors for detecting differences between outputs of said conductors.

12. (Currently Amended) The detector of claim 7, wherein said sensing circuitry is configured for sensing a signal at ~~said~~ at least one ~~sensing conductive element~~of the sensing conductors induced by a touch of a conductive object subjected to a transmission of said oscillated signal.

13. (Currently Amended) The detector of claim 7, wherein there is provided at least a second ~~conductive element~~sensing conductor located within said sensor and having a junction with said one conductive element, wherein said oscillator is applied to the at least one of ~~said conductive element~~the sensing conductors ~~and said junction is configured such that a touch by a capacitive object causes an a.c short at said junction~~, said detector being configured to detect a resulting oscillating signal at said sensing conductor, wherein said resulting signal is caused by a touch of a conductive object at said junction, ~~second conductive element~~ and therefrom to infer said touch.

14. (Currently Amended) The detector of claim 13, wherein said detection circuitry is adapted to detect a signal at said at least second sensing conductor ~~conductive element~~ for interpretation as a number of touching objects.

15. (Currently Amended) The detector of claim 2, wherein multiple electromagnetic-based objects can be detected based on the interpretation of properties of the detected signal.

16. (Original) The detector of claim 3, wherein multiple conductive objects can be detected based on the interpretation of properties of the detected signal.

17. (Currently Amended) The detector of claim 7, wherein said oscillator is connected to oscillate at least one of said detector, part of said detector and ~~said~~ the at least one ~~conductive element~~sensing conductor with respect to a reference voltage level, thereby to permit a capacitive current flow between a conductive touching object and said at least one sensing conductor.

18. (Original) The detector of claim 1, wherein said sensor is configured with a transparent medium between itself and an underlying display screen.

19. (Original) The detector of claim 18, wherein said transparent medium comprises an air gap

20. (Currently Amended) The detector of claim 3, wherein said detector comprises

a source of an oscillating electrical ~~energy~~ signal at a predetermined frequency, and

detecting circuitry for detecting a capacitive influence on said at least one sensing conductor when said oscillating electrical ~~energy~~ signal is applied.

21. (Previously Presented) The detector of claim 1, wherein said detection circuitry comprises a differential detector arrangement associated with said sensing conductors for detecting differences between outputs of said conductors.

22. (Currently Amended) The detector of claim 20, wherein said source of oscillating electrical ~~energy~~ signal is configured to transmit said ~~energy~~ signal into ~~said~~ a conductive object, and said sensing circuitry is configured for sensing a signal at said at least one sensing ~~conductive element~~conductor induced by a touch of ~~a~~ said conductive object subjected to said transmitted oscillated signal.

23. (Currently Amended) The detector of claim 3, configured to interpret a property of a signal detected at said at least one sensing conductor in terms of a number of touching conductive objects.

24. (Currently Amended) The detector of claim 20, wherein there is provided at least a second sensing conductor located within said sensor and having a junction with said at least one sensing conductor, wherein said source of oscillating electrical ~~energy~~ signal is applied to one of said conductors ~~and said junction is configured such that a touch by a conductive object causes an a.c short at said junction~~, said detector being configured to detect ~~the~~ a resulting oscillating signal at said second sensing conductor, wherein said resulting oscillating signal is caused by a touch of a conductive object at said junction, ~~as said capacitive effect~~ and to infer said touch.

25. (Original) The detector of claim 24, wherein said detection circuitry is configured to interpret a property of a detected signal as a number of touches of a corresponding conductor.

26. (Currently Amended) The detector of claim 24, comprising a matrix of first sensors aligned in a first direction and second sensors aligned in a second direction with a plurality of junctions in between, and further comprising a tabulation of leakage signals caused by capacitance values for each junction, said detector being configured to use said leakage ~~capacitance~~ signal values to correct readings at each conductor.

27. (Currently Amended) The detector of claim 20, wherein said source of oscillating electrical ~~energy~~ signal is connected to oscillate at least one of said detector, part of said detector and said at least one sensing conductor with respect to a reference voltage level, thereby to permit a capacitive current flow between ~~said~~ a conductive object and said at least one sensing conductor.

28. (Currently Amended) The detector of claim 27, wherein said source of oscillating ~~energy~~ signal is connected to oscillate a first part of said detector, and wherein said first part is connected to a second part not subject to oscillations via a communication connection unaffected by the potential difference between said first and said second parts of the detector.

29. (Original) The detector of claim 28, wherein said communication connection comprises at least one differential amplifier.

30. (Previously Presented) The detector of claim 1, wherein said sensor is configured with a transparent medium between itself and said display screen.

31. (Original) The detector of claim 30, wherein said transparent medium comprises an air gap.

32. (Currently Amended) The detector of claim 1, wherein said sensor comprises a grid of sensing conductors arranged within a layer thereof.

33. (Currently Amended) The detector of claim 32, wherein said sensing conductors are connected pairwise to amplifiers.

34. (Currently Amended) The detector of claim 33, wherein said amplifiers are differential amplifiers each having a positive input and a negative input and wherein one sensing conductor of said pair is connected to said positive input and a second sensing conductor of said pair is connected to said negative input.

35. (Currently Amended) The detector of claim 20, further comprising a compensation table for providing a compensation value at each conductor to compensate for leakage signal resulting from parasitic capacitance value~~static noise~~.

36. (Currently Amended) The detector of claim 35 or claim 52, configured to update said compensation table upon system startup.

37. (Currently Amended) The detector of claim 35 or claim 52, configured to use ~~an~~ ambiguous object detection as a trigger to refresh said compensation table.

38. (Original) The detector of claim 37, wherein any combination of number, phase and position data from detected signals are used to define ambiguity in object detection.

39. (Canceled)

40. (Previously Presented) The detector of claim 20, wherein said oscillating signal to an external transmitter to energize a touching capacitive object.

41. (Currently Amended) The detector of claim 20, wherein said detector comprises a matrix of a first set of conductors aligned in a first direction and a second set of conductors aligned in a second direction, said oscillating signal is provided to said first set of conductors and sensed at any of said second set of conductors to which said signal has been passed by a capacitive link caused by a touching conductive object.

42. (Currently Amended) The detector of claim 20, wherein said oscillating signal to at least one of said sensing conductors such that a conductive object drains current from a respective conductor.

43. (Previously Presented) The detector of claim 42, comprising using said oscillating signal to oscillate a detection mechanism comprising said conductors wherein said oscillated detection mechanism is simultaneously isolated from common ground.

44. (Currently Amended) The detector of claim 42, comprising:

using said oscillating signal to oscillate a first part of a detection mechanism, said first part comprising said sensing conductors,

isolating said first part from a second part, and

using said isolated second part to communicate touch detection outputs to external devices.

45.-49. (Canceled)

50. (New) The detector according to any of claims 13 or 20-35, wherein said conductive object is a body part.

51. (New) The detector of claim 34, further comprising a compensation table for providing a compensation value at each differential amplifier's output resulting from difference of the input capacitance values at each of said differential amplifier's inputs.